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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,746	01/17/2006	Keishu Takemoto	284059US3XPCT	1518
22850	7590	04/30/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER CHEN, BRET P	
			ART UNIT	PAPER NUMBER
			1762	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/30/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/30/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/564,746	Applicant(s) TAKEMOTO ET AL.	
	Examiner B. Chen	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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DETAILED ACTION

Claims 1-10 are pending in this application, which is a 371 of PCT/JP04/10106.

The preliminary amendment dated 1/17/06 amending claims 8-10 has been entered.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claim 1, the phrase "reducing the pressure inside a plastic container" is deemed nonenabling as the specification does not enable one skilled in the art to reduce only a portion of the plastic container. Clarification and appropriate amendments are requested.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 lines 3-4, the phrase “reducing the pressure inside a plastic container” and “reducing the pressure of the entire plastic container” is deemed vague and confusing as to what the difference is. It is the examiner’s position that the phrases are the same. Furthermore, how does one skilled in the art reduce the pressure in only a portion of the plastic container?

In claim 1 line 5, the term “dry gas” is a relative terms which is deemed vague and indefinite. The term "dry" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The same issue applies to claim 3-7, 9.

In claim 1 line 5, the term “the vacuum” lacks antecedent basis. The same issue applies to claim 8.

In claim 1 lines 7-8, the terms “a source gas” and “a gas which includes a source gas” is deemed vague and confusing as to what the difference is between said terms. If a gas includes a source gas, isn’t it a source gas? Clarification and appropriate amendments are requested. The same issue applies to claims 3, 6-8.

In claim 1 line 9, the term “the inner surface” lacks antecedent basis. The same issue applies to claims 3, 6-7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humele et al. (6,599,569) in view of Kim et al. (6,306,222). Humele discloses a method for coating plastic containers includes applying a thin inorganic oxide layer to the external surface of the containers with plasma-assisted vacuum vapor deposition to form a coated plastic container which has low permeability to gases and vapors (col.4 lines 60-65). The source gas is inserted into the container and a plasma is utilized (col.10 line 30 – col.11 line 18). The container can be PET (col.13 line 27). In one embodiment, Humele teaches of performing a surface pretreatment step of forming free radicals on the surface by using a plasma or degassing the bottle surface to remove absorbed moisture by placing the bottle in a vacuum for a period of 5-180 seconds (col.13 lines 1-18). However, the reference fails to teach the use of a dry gas.

Kim et al. (6,306,222) discloses a process for cleaning plastic materials, in which foreign materials adhered on the plastic materials are cleaned to recycle the plastic materials (col.1 lines 5-11). Specifically, the reference teaches of a utilizing a heated nitrogen gas to dry plastic pieces

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(col.3 lines 30-42). It is noted that Humele specifically teaches the desirability of removing moisture from the plastic container. Kim teaches that drying can be accomplished by utilizing a heated gas. It would have been obvious to one skilled in the art to utilize Kim's drying gas in the process of Humele with the expectation of obtaining similar results.

In claim 2, the applicant requires a specific pressure. Humele discloses a pressure range (col.10 lines 55-56) and the skilled artisan would balance the use of a higher vacuum versus costs. It would have been obvious to one having ordinary skill in the art to have determined the optimum value of a cause effective variable such as pressure through routine experimentation in the absence of a showing of criticality.

In claim 3, the applicant requires a specific temperature. Kim discloses a range of temperature (col.3 lines 30-42) and the skilled artisan would balance a short drying time with the thermal budget requirements of the particular substrate. It would have been obvious to one having ordinary skill in the art to have determined the optimum value of a cause effective variable such as temperature through routine experimentation in the absence of a showing of criticality.

The limitations of claims 5-10 have been addressed above.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. Chen whose telephone number is (571) 272-1417. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bc
4/24/07



BRET CHEN
PRIMARY EXAMINER